

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/FR2005/000646

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C21D8/02 C22C38/22 C22C38/24

According to International Patent Classification (IPC) or to both national classification and IPO

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C21D C22C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, CHEM ABS Data, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	EP 0 288 054 A (NIPPON STEEL CORPORATION) 26 October 1988 (1988-10-26) claims 1-5; tables 1-3	1-6 7-10
X	PATENT ABSTRACTS OF JAPAN vol. 007, no. 022 (C-148), 28 January 1983 (1983-01-28) & JP 57 177927 A (NITSUSHIN SEIKOU KK), 1 November 1982 (1982-11-01) abstract	7-10
X A	US 6 669 789 B1 (EDELMAN DANIEL GEOFFREY ET AL) 30 December 2003 (2003-12-30) claims 1-10; tables 1-7	1, 2, 4, 5, 10 3, 6
A	US 3 539 404 A (ANTHONY F. DERETANA) 10 November 1970 (1970-11-10) the whole document	1-10

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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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A document member of the same patent family

Date of the actual completion of the international search

10 October 2005

Date of mailing of the international search report

18/10/2005

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C. (Contrast) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 534 805 A (JESSEMAN ET AL) 13 August 1985 (1985-08-13) claims 1-7	1-10
A	ES 2 130 065 A1 (GSB GRUPO SIDERURGICO, S.A; GSB GRUPO SIDERURGICO VASCO, S.A) 16 June 1999 (1999-06-16) claims 1-3	1-10
A	WO 99/05337 A (USX ENGINEERS AND CONSULTANTS, INC) 4 February 1999 (1999-02-04) claims 1-10	1-10
A	US 4 988 393 A (YAMABA ET AL) 29 January 1991 (1991-01-29) claims 1-11	1-10

Form PCT/ISA/210 (continuation of second sheet) (January 2004)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/FR2005/000646

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0288054	A	26-10-1988	DE 3883051 D1 DE 3883051 T2 KR 9200523 B1 US 4851052 A	16-09-1993 02-12-1993 14-01-1992 25-07-1989
JP 57177927	A	01-11-1982	JP 1482089 C JP 63030971 B	27-02-1989 21-06-1988
US 6669789	B1	30-12-2003	NONE	
US 3539404	A	10-11-1970	NONE	
US 4534805	A	13-08-1985	NONE	
ES 2130065	A1	16-06-1999	NONE	
WO 9905337	A	04-02-1999	AU 712066 B2 AU 8513898 A BR 9808883 A CA 2273267 A1 EP 1007752 A1 JP 2000512346 T TW 426743 B US 6056833 A ZA 9806550 A	28-10-1999 16-02-1999 03-10-2000 04-02-1999 14-06-2000 19-09-2000 21-03-2001 02-05-2000 03-02-1999
US 4988393	A	29-01-1991	AU 558845 B2 AU 4377285 A CA 1246969 A1 DE 3579376 D1 EP 0165774 A2	12-02-1987 02-01-1986 20-12-1988 04-10-1990 27-12-1985

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